

ORTHOPHYTUM GURKENII, SP. NOV. (BROMELIACEAE)

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During an expedition organized by Roberto Burle Marx of Rio de Janeiro in September 1981, plants of a new species of *Orthophytum* with zebra-striped leaves were collected living. Subsequently these flowered in the Burle Marx and the Gurken collections in the suburbs of Rio de Janeiro and in November 1982, at the request of Luiz Carlos Gurken, I drew up the following description from examination of many living plants. In December this description was further elaborated at Berkeley from a living flowering specimen hand-carried by me from Brasil. It was then pressed as the holotype. An additional specimen prepared by Gurken in Brasil is being forwarded by me to Smithsonian as an isotype.

ORTHOPHYTUM GURKENII P. C. Hutchison, *sp. nov.* *Ab omnibus ceteris speciebus Orthophyti foliis purpureo-brunneis irregulariter zebrinis, spicis glabris globulosis pallide viridibus in inflorescentiis laxe bipinnatis usque ad 40 cm. altis, floribus sessilibus albis 15-16 cm. longis, sepalis viridibus 13 mm. longis discedit.*

Plants solitary with short, thick caudex, the sterile plants mostly up to 15 cm. tall and 25 cm. in diameter, larger in shade, somewhat smaller in the wild, especially when in full sun, the leaves suberect to spreading. Flowering plant 40 cm. tall with leaves to 25 cm. long and 4.5 cm. wide, shallowly and broadly canaliculate, spreading, arching recurved or the uppermost on the inflorescence deflexed, with a distinct sheath enfolding the stem, the blades broadly triangular-attenuate, laxly spinose with teeth up to 2.5 mm. long, deep purplish or purplish brown, irregularly and sparsely white lepidote beneath, above white lepidote in straight, wavy, or irregular to jagged lines mostly 2-3 mm. wide extending to the margins or nearly (zebra-striped), alternating with glabrous zones about 5 mm. wide. Scape arching, stout (1.5 mm. diameter basally, 6 mm. diameter below the first flowers), densely white lepidote with purplish epidermis visible. Scape bracts forming a series from the largest leaves to a lance-attenuate apical bract 10 cm. long, 24 mm. wide, deflexed but scarcely recurved, coriaceous, rounded basally, marked as the leaves with lepidote scales, the stalk lepidote. Inflorescence laxly bipinnate; axis white lanate-lepidote over purplish epidermis; primary bracts like the scape bracts but reduced to 9 x 2 cm., 5 x 2 cm., 4 x 2 cm. and down to ca. 1 x 1 cm., the uppermost ones becoming greenish and losing cross-striae, although still sparsely lepidote, all deflexed to parallel the axis or nearly; 3 to 6 spikes sessile,

semiglobose, many flowered, up to 3 cm. tall and 4 cm. in diameter, pale green; floral bracts lanceolate, acuminate, exceeding flowers, rigid, arched-recurving, whitish serrulate, pungent. Flowers 15-16 mm. long. Sepals symmetric, lance-triangular, attenuate, whitish below shading to pale green on the apical half, 13 mm. long, ecarinate to carinate, not coriaceous, margins and apex simple. Petals 15-16 mm. long, linear, obtuse apically, white, or white apically and somewhat greenish below. Filaments white. Ovary ovate, 4 mm. in diameter. Style barely exerted, whitish. Flowers scarcely pedicillate, mostly sessile.

BRASIL, state of Minas Gerais, Municipality of Teófilo Otoni, near the town, *Luiz Carlos Gurken and Sergio Gurken 1002* (UC 1475009-Holotype, US).

A supplementary number on the holotype is *P. C. Hutchison 8379*. The isotype was pressed in Brasil in 1982 by Luiz Carlos Gurken from his living collection in Vargem Grande near Rio de Janeiro. Plants are also cultivated by Roberto Burle Marx at his sitio, Santo Antonio de Bica, near Barra do Guaratiba just south of Rio de Janeiro. A single specimen is growing at Tropic World, Escondido, California.

This species is a narrow endemic. The population occupies an area no larger than 100 x 100 meters on rocky outcrops associated with *Lycopodium*, *Vellozia*, *Encholirion*, *Pseudopilosocereus*, a palm, and a nettle-like Euphorbiaceous shrub that stings painfully. The *Encholirion* likewise appeared to be endemic; the other species were seen elsewhere. Grazing occurs in the area and there is also danger of fire. Consequently this new species could easily be exterminated by indiscriminate collecting or by habitat destruction. Material for collectors should be produced from seed as the plant seldom offsets. The Gurken brothers are attempting to produce seedlings.

The zebra stripes on dark brown-purple leaves set this species apart from all other *Orthophytum* species. The aspect of the sterile plants is like *Cryptanthus zonatus* and *C. fosterianus*, but the color contrasts are stronger and the stripes more clearly defined, and the leaves are ultimately larger.

It is a pleasure to dedicate this new species to Luiz Carlos Gurken who, with his brother Sergio, has for the last dozen years or so collected many new species of Bromeliaceae and rediscovered many rare species throughout Brasil. They have a superb collection in Vargem Grande and are propagating the choicest of their discoveries from seed. Duplicates of many of their collections are growing in the private botanical garden of Roberto Burle Marx. Their collections include many rare and new species in other families from Brasil and other South American countries, most notably

in Cactaceae, Araceae, Velloziaceae, *Heliconia* and *Begonia*.

Color photographs of this striking new species will be published in the Bromeliad Journal.